

Berus-Lie Academic Spring Tournament (BLAST)

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Packet 9: We Steve for Steve

Tossups

1. **The Evans oxazolidinone and BINOL ["by-nol"] are auxiliary compounds which can synthesize molecules with this property. Mixtures of compounds with this property can be separated into their constituents through a process known as resolution. By the Cahn-Prelog-Ingold naming system, molecules with this property are designated as (*) R or S. This property was first observed by Louis Pasteur when he looked at the rotation of plane-polarized light in tartaric acid crystals. For 10 points, name this property of molecules which cannot be superimposed on their mirror image, coming from the Greek word for "handedness."**

ANSWER: chirality [accept enantiomers, accept optically active or word form] <ARB, Chemistry> {Science, Chemistry}

2. **While living in Berlin, an artist from this country placed a black cross on top of several flags in his *Portrait of a German Soldier*. Another artist from this country depicted a woman in a blue dress contemplating underneath a lamp in a movie theater. Alfred H. Barr coined the name of this country's Precisionist movement, a painting from which is Charles Demuth's (*) *I Saw the Figure 5 in Gold*. Two women chat in a restaurant in *Chop Suey*, a painting by an artist from this country who also painted a work which contains an advertisement for "five cent Phillies cigars." For 10 points, name this country where Edward Hopper painted scenes of daily life in New York City.**

ANSWER: United States of America [accept either underlined portion; accept U.S.A.] <HP, Visual Fine Arts> {Fine Arts, Visual Fine Arts}

3. **Michael learns the answers to three questions and returns to angelhood after working as Simon's apprentice in this author's story "What Men Live By." One of this author's characters adopts an uncertain half-bow half-crossing himself gesture out of respect for a dead man, before arranging a game of bridge with Schwartz. This author based one novel on his *Sevastopol Sketches*, and he wrote about a man who tries to sue Simon for cutting down his lime trees before striking a deal with the Bashkir tribes, named (*) Pahom, in his story "How Much Land Does a Man Need?" Gerasim helps care for a man who was injured after falling while hanging curtains in a novella by this author. For 10 points, name this author of "The Death of Ivan Ilyich," a Russian writer who also penned *War and Peace*.**

ANSWER: Leo Tolstoy <VS, Short Fiction> {Literature, Short Fiction/Other}

4. RMIT built on a Gillberg, Rastam, and Bourgeron-led study on people with this condition that linked it to a mutation in the gut-brain axis. People with this condition self-regulate external sensory inputs in a phenomenon known as “stimming.” Many people with this condition said that a girl would look for her marble in the box rather than the basket in which she left it in the “Sally-Anne test.” It’s not depression or anxiety, but the controversial (*) “high functioning” and “low functioning” labels have been applied to this condition. Bruno Bettelheim proposed that this condition was caused by “refrigerator mothers.” For 10 points, name this class of conditions that cause stereotyped behaviors; narrow, fixated interests; and difficulties in social interactions, whose spectrum includes Asperger syndrome.

ANSWER: autism spectrum disorders <DP, Social Science> {Thought, Social Science}

5. Francis Perrin advised the ruler of one country in this conflict to gain the support of another by giving them the materials to develop an atomic bomb. This conflict began with an invasion during Operation Musketeer. As a result of this conflict, one side gained freedom of travel along the Straits of Tiran, which would later be threatened during the (*) Six-Day War. Lester Pearson won the Nobel Peace Prize for negotiating the end of this conflict, while Anthony Eden resigned as Prime Minister following it. For 10 points, name this conflict sparked by withdrawal of funding for the Aswan High Dam after Gamel Abdel Nasser [“nah-suhr”] nationalized a certain Egyptian canal.

ANSWER: Suez Canal Crisis <AN, World History> {History, World History}

6. These devices ideally have current proportional to the exponential of voltage divided by thermal voltage minus one. One of these devices is connected in series with a resistor in a half-wave rectifier, and four of them are connected in a bridge in a full-wave rectifier, both of which convert AC to DC. These devices only conduct appreciably beyond the knee voltage. The (*) Shockley equation can be used to calculate the current in these devices. These devices, symbolized by a triangle and a line at its tip, are formed from a single p-n junction. Above the breakdown voltage, these devices conduct in reverse. For 10 points, name these circuit components which allow current to flow in only one direction, such as a common “light-emitting” type.

ANSWER: diodes [accept light-emitting diode] <SL, Physics> {Science, Physics}

7. *Description acceptable.* In 2012, a pathway for the reversal of this action for one country was proposed in Plan Z. Performing this action nominally requires maintaining a debt-to-GDP ratio of at most 60% according to the Stability and Growth Pact. Participation in the Exchange Rate Mechanism is a prerequisite for this action. Countries in the (*) European Union are required to perform this action after meeting the Maastricht criteria, with the exception of Denmark and the United Kingdom who have opt-outs to respectively maintain the krone and pound sterling. For 10 points, name this action in which a country adopts the common currency of Europe.

ANSWER: entering the Eurozone [accept descriptions about countries adopting the Euro; do NOT prompt on or accept “entering the European Union” or equivalents] <SL, European History> {History, European History}

8. In November 2018, thousands of this company’s employees organised a walk-out over the way this company handled sexual harassment complaints following the generous severance package given to Andy Rubin. In June 2019, the Department of Justice announced plans to investigate this company for violating antitrust laws. In July 2019, this company was ordered to (*) testify before the Senate Judiciary Committee over alleged bias against conservatives, a charge which surfaced following the firing of James Damore in 2017. Sundar Pichai is the CEO of, for 10 points, what tech company most known for its search engine?

ANSWER: Google LLC [accept Alphabet inc.] <GP, Current Events> {Other, Current Events}

9. While on the second floor of a shop in this country, a man sees a woman singing a trendy song beginning "It was only an 'opeless fancy" while washing her clothes. The leader of a rebel group in this country is the supposed author of the government-written tract *The Theory and Practice of Oligarchical Collectivism*. A "narrow scarlet sash" that ironically catches the protagonist's eye symbolizes this country's (*) Junior Anti-Sex League. This country's "Two Minutes Hate" targets the possibly fictitious leader of a rebel group called The Brotherhood, Emmanuel Goldstein. Citizens in this country speak Newspeak. For 10 points, name this fictional country that sets George Orwell's novel *Nineteen Eighty-Four*.

ANSWER: **Oceania** [prompt on England, United Kingdom, or equivalents] <SL, Long Fiction> {Literature, Long Fiction}

10. This man killed Og, the last of the Rephaim, at the battle of Edrei. This man erected the Nehushtan, a metal serpent on a pole with the power to heal snake bites. Right after being born, Jochebed placed this man in an ark and hid him in the bulrushes on the banks of the Nile to protect him from being killed. Despite the fact that "his eyes were not weak nor his strength gone", this man dies atop Mount (*) Nebo after surveying the promised land he is not allowed to enter. While his people were being chased, this man holds out his staff to allow them safe passage, then holds his hands out again to drown the Pharaoh's army. For 10 points, name this biblical figure who led the Israelites out of Egypt and parted the Red Sea.

ANSWER: **Moses** <SZ, Religion> {Beliefs, Religion}

11. Sven Beckert traces the origins of modern capitalism to the production of this good in his work *Empire of [this good]*. *DeBow's Review* called for the introduction of industrialization to process this crop. The British began to favor the Sea Island variety of this crop over the less-durable Surat variety. Catharine Greene funded the creation of a device used to increase this crop's yield. A form of (*) diplomacy revolving around this crop ended following the Trent Affair. James Hammond coined the phrase that this crop was "king." For 10 points, name this "white gold" crop which the South heavily relied on in antebellum America.

ANSWER: **cotton** <HP, American History> {History, American History}

12. A humanity-hating scientist from this country creates the ETO [**"E-T-O"**] organization, which exploits a novel method of amplifying radio waves. Stories like "Meat Boy" and "Cooking Lesson" are interspersed in the novel *Republic of Wine*, which was written by an author from this country. In a novel from this country, sophons are used by Trisolaran aliens to interfere with Earth's particle accelerators. A nonlinear novel set in this country chronicles a family of distillery workers as their country is invaded. In another novel set in this country home to the authors of (*) *The Three Body Problem* and *Red Sorghum*, the character "I" is falsely diagnosed with lung cancer and searches for the title *Soul Mountain*. For 10 points, name this country whose contemporary novelists include Mo Yan, Liu Cixin [**"tsi-shin"**], and Gao Xingjian [**"shing-gee-an"**].

ANSWER: **China** [accept **People's Republic of China** or **Zhongguo**; do NOT accept or prompt on "Republic of China"] <DP, Long Fiction> {Literature, Long Fiction}

13. Two brothers from this country invented the Cinematograph that they used in their black and white film *Exiting the Factory*. The word "RAILOWSKY" can be seen in the background twice in a photograph from this country. A blurry figure rides a bicycle next to a spiral staircase in a photograph by an artist from this country; that photograph was included alongside one of a man jumping from a ladder to a puddle in a book that was prefaced by a philosophical definition of the title (*) "Decisive Moment." An artist from this country developed a pioneering silver-copper plate technology to take photographs that were dubbed his namesake "-otypes." For 10 points, name this country home to Henri Cartier-Bresson [**"awn-REE card-YAY breh-SOHN"**] and Louis Daguerre [**"da-GAY-er"**].

ANSWER: **France** [The first line refers to the Lumière Brothers] <WZ, Other Visual Arts> {Fine Arts, Other Fine Arts}

14. The “double phospholipid” cardiolipin constitutes 20% of one portion of this organelle. A protein released from this organelle binds to APAF1 to trigger the intrinsic pathway of apoptosis. In this organelle, a set of reactions called the Q cycle describes how ubiquinone interacts with complex III. One process in this organelle uses redox reactions to generate a (*) proton gradient via an electron transport chain. Along with chloroplasts, this organelle’s independent DNA is the subject of endosymbiotic theory. For 10 points, name this organelle that generates ATP, leading to its moniker of “the powerhouse of the cell.”

ANSWER: mitochondrion [or mitochondria] <DB, Biology> {Science, Biology}

15. In Aztec mythology, the Centzon Totochtin is a divine group of these creatures who meet for drunken parties. When Tecciztecatl [“**tech-iz-te-cattle**”] sacrifices himself to become the second sun, one of these animals is thrown at him, dimming him and turning him into the moon. One of these animals in Japanese mythology is skinned after traversing a bridge of crocodiles, then tricked into bathing in salt water. In Korean mythology, these animals make (*) rice cakes in the moon. One of these creatures pounds the elixir of immortality for the moon goddess Chang’e, and it comes after the bull in the Chinese Zodiac. For 10 points, name this kind of animal that hides eggs during Easter.

ANSWER: rabbit [accept hare, accept bunny] <SW, Mythology> {Beliefs, Mythology}

16. A prominent player of this instrument commissioned works such as Ravel’s G major piano concerto while serving as conductor of the Boston Symphony Orchestra; that player was Serge Koussevitzky [SER-gay koo-seh-VIT-skee]. The funeral march of Mahler’s first symphony begins with a minor key rendition of *Frère Jacques* by this instrument. Giovanni Bottesini revolutionized the usage of the (*) French bow grip as opposed to the German grip to play this instrument. Camille Saint-Saëns [“**san-SAWNS**”] used this instrument to represent the elephant in *Carnival of the Animals* because of its low pitch. For 10 points, name this lowest-pitched and largest instrument in standard string orchestras.

ANSWER: double bass [accept string bass or upright bass or stand-up bass; do NOT accept or prompt on “electric bass”] <AN, Auditory Fine Arts> {Fine Arts, Auditory Fine Arts}

17. Two countries lying on this body of water disputed control of its Migingo Island in the late 2000s over fishing rights. Albinos form a large percentage of the population of Ukerewe Island in this body of water. This body’s outflow supplies the Owen Falls Dam, which is located near the city of Jinja. Invasive species such as (*) perch have threatened native populations of cichlids in this lake. John Hanning Speke was the first European to see this lake, from which the White Nile River flows. For 10 points, name this largest lake in Africa surrounded by Uganda, Tanzania, and Kenya, which is named for a British queen.

ANSWER: Lake Victoria <GP, Geography> {Other, Geography}

18. This country started one war when it tried unsuccessfully infiltrating another country in Operation Gibraltar. A military dictator in this country instituted the “Basic Democracies” system to rig elections in his favour. Under President Yahya Khan, this country committed genocide as part of Operation Searchlight. Following its independence, this country’s southern border was demarcated by the (*) Radcliffe Line. Zulfikar Ali Bhutto, a leader of this country, was deposed for allowing the eastern portion of this country to gain independence as Bangladesh. For 10 points, Muhammad Ali Jinnah founded what country, which disputes the region of Kashmir with India?

ANSWER: Islamic Republic of Pakistan <GP, World History> {History, World History}

19. In one poem, this character is repeatedly claimed to “come as a master from Deutschland.” That poem titled for this character describes people drinking the “Black milk of daybreak.” In another poem, this character is asked, “why swell’st thou then?” as the speaker describes a phenomenon “better than thy stroke.” This subject of a “Fugue” by Paul Celan is said to know “no haste” in a poem that describes a house as (*) “a Swelling of the Ground.” In one poem, this character is called a “Slave to Fate, Chance, kings, and desperate men.” This character is told to “be not proud” in a poem by John Donne. For 10 points, name this friendly carriage driver for whom Emily Dickinson “could not stop.”

ANSWER: death [accept "Death Fugue" or "Todesfugue" or "Death, Be Not Proud" or "Because I Could Not Stop for Death"] <DP, Non-Epic Poetry> {Literature, Non-Epic Poetry}

20. In robust statistics, the mean has a breakdown point of this value. This is the minimum value that can be taken by a function for which Markov's inequality applies. Type II errors are guaranteed when statistical power is equal to this value. As a distribution, the standard deviation of the Dirac-delta function is equal to this value. For a linear regression model, the mean of the (*) residuals is equal to this value. For a data set, the mean of the z-scores is equal to this value. As sample size grows to infinity, the standard error of a sampling distribution approaches this value. R-squared is equal to this value for uncorrelated variables. For 10 points, give this value, the probability of an impossible event.

ANSWER: zero <SL, Math> {Science, Mathematics}

Bonuses

1. An artifact created by this culture depicts a man holding up a platter on a wagon. For 10 points each:

[10] Name this culture, which produced such artifacts as the Strettweg Cult Wagon and the Warrior of Hirschlanden. It is named after a cemetery excavated by Johann Ramsauer in an Austrian salt mine.

ANSWER: **Hallstatt** Culture

[10] The Hallstatt Culture was prominent during this age, which succeeded the stone age. This age, named after an alloy of copper and tin, saw the Minoan civilization flourish.

ANSWER: **Bronze** Age

[10] The Hallstatt Culture developed out of an earlier European culture described by these objects. Romans stored cinerary examples of these objects in *columbarium*.

ANSWER: **urns** [accept **Urn**field Culture] <HP, Ancient/Other> {History, Ancient/Other History}

2. An island in this archipelago is known as the Ilha Preta [**“ILL-ya PRAY-ta”**] due to its high volcanic activity. For 10 points each:

[10] Name this archipelago, whose “Triangle” islands include Faial and Sao Jorge. This archipelago contains Ponta do Pico, which is the tallest in its country.

ANSWER: the **Azores**

[10] The island of Pico in the Azores is known for the production of this good, which mainly occurs in the IPR region. Another variety of this good is made in the Madeira Islands.

ANSWER: **wine**

[10] Most of the Port wine comes from the Douro River valley, which flows in this country. The Tagus River flows through this country’s capital, Lisbon.

ANSWER: **Portugal** <HP, Geography> {Other, Geography}

3. A “critical” type of this quantity needs to be surpassed for superconductivity to occur. For 10 points each:

[10] Name this quantity which is zero at absolute zero. Bose–Einstein condensates form at extremely low values for this quantity, which is measured in Kelvin.

ANSWER: **temperature** [accept **T**]

[10] These molecules become superconductors below 20 K. They are cylindrical fullerenes consisting of a hexagonal lattice of atoms.

ANSWER: carbon **nanotubes** [or **CNT**]

[10] A perovskite-like material that can act as a high-temperature superconductor above the boiling point of nitrogen includes this element between copper oxide planes and ribbons while yttrium lies between copper oxide planes.

ANSWER: **barium** [or **Ba**; the material is yttrium barium copper oxide] <KL, Physics> {Science, Physics}

4. Because this scale is made of the notes from two different diminished seventh chords, composers can use it to include spicy tritones in their music. For 10 points each:

[10] Name this symmetric scale, most commonly named after the number of notes in it. It is composed of alternating whole and half steps.

ANSWER: **octatonic** scale [accept **diminished** scale; accept “mode” or “collection” in place of “scale”]

[10] This composer’s *Symphony of Psalms* opens with an oboe-bassoon duet playing notes from the octatonic scale. He also arguably used the octatonic scale when writing a chord combining the C major and F-sharp major triads, the “Petrushka chord.”

ANSWER: Igor Fyodorovich **Stravinsky**

[10] Stravinsky was from this country. Stravinsky’s use of the octatonic scale likely took after his teacher, Rimsky-Korsakov, another composer from this country.

ANSWER: **Russia** [accept the **Union of Soviet Socialist Republics** or **Soviet Union** or the **USSR**] <ML, Auditory Fine Arts> {Fine Arts, Auditory Fine Arts}

5. In one incident in this novel, an old blind man tells a young boy to listen to a statue of a bull and then slams his head into the statue when he puts his head close. For 10 points each:

[10] Give this anonymously published Spanish novella. In another episode in this novella, the protagonist pretends to be a rat and a snake to steal bread from his master, a friar.

ANSWER: **Lazarillo de Tormes** (“la-za-REE-yo de TOR-mays”)

[10] *Lazarillo de Tormes* pioneered this genre of fiction centering on low-class rogues.

ANSWER: **picaresques** [or **picarescos**; or novelas **picarescas**]

[10] *Rinconete and Cortadillo* and *The Dialogue of the Dogs* are picaresques stories included in this author’s *Exemplary Novels*. The poet Ginés de Pasamonte pays homage to *Lazarillo* in this author’s novel *Don Quixote*.

ANSWER: Miguel de **Cervantes** Saavedra <AMB, Long Fiction> {Literature, Long Fiction}

6. The act 2 interlude in this opera is written as an exact palindrome. For 10 points each:

[10] Name this opera that, along with *Wozzeck* [“VOT-seck”], exemplified its composer’s serialist writing. At its end, the title woman is murdered by Jack the Ripper.

ANSWER: **Lulu**

[10] *Lulu* and *Wozzeck* were written by this composer, a student of Arnold Schoenberg. His violin concerto is dedicated “to the memory of an angel.”

ANSWER: Alban **Berg** [“BAIRG”] [accept Alban Maria Johannes **Berg**]

[10] Berg, along with Arnold Schoenberg and Anton Webern, was a member of a school of music named after this city. This Austrian city was also home to the composer of *Die Fledermaus*, Johann Strauss II.

ANSWER: **Vienna** [accept **Wien**; accept Second **Viennese** School] <ML, Other Fine Arts> {Fine Arts, Other Fine Arts}

7. Ridges called arêtes [“uh-RETS”] can be formed from these objects. For 10 points each:

[10] Name these masses of ice. Icebergs can be cleaved from these bodies.

ANSWER: **glaciers**

[10] This type of glacier is found in high mountain valleys. They carve out U-shaped valleys and are generally much smaller than continental glaciers.

ANSWER: **alpine** glaciers [prompt on mountain glaciers]

[10] This movement of a glacier arises from high pressures below the glacier melting ice into a film of water. The water then acts as a lubricant, reducing friction during this process.

ANSWER: **basal sliding** [or **basal slip**; prompt on partial answer] <KL, Earth Science> {Science, Other Science}

8. The “Grass Fight,” named because the captured mules of one side carried grass rather than the expected silver, occurred outside this city. For 10 points each:

[10] Name this city that was the site of the Siege of Béxar [“beh-HAR”], the only other major Texan victory in the Texan Revolution besides San Jacinto.

ANSWER: **San Antonio**

[10] San Antonio also contains this mission, the famous last stand of men including William Travis and Davy Crockett. Calls for “remembering” this mission and “Remember Goliad” were popular during the Texan Revolution.

ANSWER: the **Alamo**

[10] This man was chosen as commander of Texas forces at Béxar. As the “father of Texas,” this man encouraged immigration into territory his father, Moses, had acquired from Mexico.

ANSWER: Stephen F. **Austin** <WZ, American History> {History, American History}

9. In this religion, the serpentine sky god Damballah created all the waters of the world by shedding his skin. For 10 points each:

[10] Name this syncretic religion practiced chiefly in Haiti. Practitioners direct their worship towards spirits called loa, examples of which include Erzulie Freda and Baron Samedi.

ANSWER: **Voodoo** [accept **Vodun** or **Vodou**]

[10] Voodoo practitioners believe that this supreme creator god is distant from the world and humanity, and must use loas as intermediary spirits to communicate with him. His name comes from the French for “good god”.

ANSWER: **Bondye**

[10] This loa facilitates communication, speech, and understanding. He is commonly depicted as an old man with a cane wearing a broad brimmed hat.

ANSWER: Papa **Legba** <SZ, Religion> {Beliefs, Religion}

10. This poet wrote of a Polish man burying two Jewish men alive before dying himself in "More Light! More Light!" For 10 points each:

[10] Name this poet who won a Pulitzer Prize for his collection *The Hard Hours*. This author began a parodic poem by noting "So there stood Matthew Arnold and this girl."

ANSWER: Anthony **Hecht**

[10] That Hecht poem parodies this poem by Matthew Arnold, which details a "darkling plain" where “ignorant armies clash by night.”

ANSWER: **Dover Beach** [The parody is “Dover Bitch.”]

[10] Hecht's poem sardonically notes that the girl had read this writer "in fairly good translation," in reference to Arnold's line that this writer had "heard [the eternal note of sadness] on the Aegean."

ANSWER: **Sophocles** <KL, Non-Epic Poetry> {Literature, Non-Epic Poetry}

11. A “Stranger” from this town features prominently in the Platonic dialogue *The Sophist*. For 10 points each:

[10] Name this town. A pre-Socratic school of philosophy based in this town that rejected sense experience was led by Parmenides.

ANSWER: **Elea** [or **Eleatics**; or **Eleatic Stranger**]

[10] This student of Parmenides from Elea is most famous for his paradoxes that use examples like an arrow or Achilles and a tortoise to claim to refute the existence of motion.

ANSWER: **Zeno** of Elea

[10] In Plato’s dialogue *Parmenides*, he introduces the “third man argument” against the theory of these things, which were key to Plato’s philosophy. The Allegory of the Cave compares the real world to shadows of these “ideal” things.

ANSWER: **forms** <AMB, Philosophy> {Thought, Philosophy}

12. A rabbit stands in a basket in this artist's version of the *Circumcision of Jesus*. For 10 points each:

[10] Name this Italian Mannerist painter who painted the title saint with his finger outstretched upwards in his *Vision of Saint Jerome*. He also included an enlarged hand in his *Self-portrait in a Convex Mirror*.

ANSWER: **Parmigianino** [or Girolamo Francesco Maria **Mazzola**]

[10] A Parmigianino painting depicts this woman “with the Long Neck.” Michelangelo's *Pietà* is a statue of this woman with the dead body of her son.

ANSWER: The Virgin **Mary** [or the **Madonna**]

[10] This other Mannerist showed John the Baptist kissing the sleeping Jesus in his *Madonna Panciatici* but is better known for his *Venus, Cupid, Folly, and Time*. This artist's nickname possibly refers to his dark skin.

ANSWER: Il **Bronzino** [or Agnolo **Bronzino**; or Agnolo di **Cosimo**] <AMB, Visual Fine Arts> {Fine Arts, Visual Fine Arts}

13. You are now stepping in the shoes of an *otaku*, and while reading several plays, you realize their connections with various animes. For 10 points each:

[10] You can only conclude that the character of Mephisto Pheles from “Blue Exorcist” was based off of Mephistopheles, who tempts this title scholar of a Johann Wolfgang Goethe [“GUR-ta”] play to sell his soul.

ANSWER: **Faust**

[10] After reading the line “Cory in the House?” you wonder whether this play inspired the 2007 anime, “Cory in the House.” The protagonist of this play works with his friend Bono on a garbage collection team.

ANSWER: **Fences**

[10] During a fight with Sasori in “Naruto: Shippuden,” Chiyo mentions that the art of puppetry was created by this person. In reality, this Japanese playwright is famous for his plays about love suicides at Amijima and Sonezaki.

ANSWER: **Chikamatsu** Monzaemon [accept names in either order] <HP, Drama> {Literature, Drama}

14. This phrase preceded by “non” or “ne” was allegedly inscribed on the Pillars of Hercules at Gibraltar, indicating Spain's status as the edge of the Old World. For 10 points each:

[10] Name this two word Latin phrase that serves as the motto of Spain and appears on its coat of arms. It translates into English as “further beyond.”

ANSWER: **plus ultra**

[10] The “ne” in the phrase “ne plus ultra” was removed after this explorer financed by Ferdinand and Isabella discovered the New World.

ANSWER: Christopher **Columbus**

[10] “Plus ultra” was the motto of this Spanish king, the grandson of Ferdinand and Isabella, whose reign saw the conquest of the Incas and the Aztecs. This king's son would become Philip II.

ANSWER: **Charles I** of Spain [or Holy Roman Emperor **Charles V**; prompt on **Charles**] <WZ, European History> {History, European History}

15. This theory assumes that the volume of particles is zero. For 10 points each:

[10] Name this theory that assumes negligible interactions between molecules except during collisions, which are perfectly elastic.

ANSWER: **kinetic** theory of gases [or **kinetic-molecular** theory or **KMT**]

[10] The kinetic theory of gases predicts root mean square speed as the square root of this number times the most probable speed. Kinetic energy per molecule in a monatomic gas is this constant times kT .

ANSWER: **3/2** [or **1.5**]

[10] The kinetic theory of gases can be used to explain this law, which states that PV equals nRT .

ANSWER: **ideal gas** law <KL, Chemistry> {Science, Chemistry}

16. In one of this author's stories, a German girl who meets a man in a car accident feels alienated by the language after moving to the latter's native South Africa. For 10 points each:

[10] Name this author, whose story "Mother Tongue" appears in her collection *Beethoven Was One-Sixteenth Black*. Rosa meets her childhood friend Baasie at a Communist event in London in this author's novel *Burger's Daughter*.

ANSWER: Nadine **Gordimer**

[10] Amy Tan, an author of this ethnicity, discusses the "broken" English spoken by her mother in her essay "Mother Tongue." This is also the ethnicity of the characters in her novel *The Joy Luck Club*.

ANSWER: **Chinese**-American

[10] This author's story "A Prayer in the Mother Tongue" appears in a collection alongside his story about a young drum-carrying "dancing girl" who is seen bathing naked in a river. Old Eguchi sleeps in a house full of the title nude beauties in one of his novellas.

ANSWER: Yasunari **Kawabata** [accept names in either order; the story is "The Dancing Girl of Izu" and the novella is "The House of Sleeping Beauties"] <WZ, Short Fiction/Other Literature> {Literature, Short Fiction/Other}

17. The G8 movement in this country is pushing for shortening of secondary education from 9 years to 8 years. For 10 points each:

[10] Name this country. A gymnasium is the name for the most advanced of the three classes of secondary schools in this country.

ANSWER: **Germany**

[10] At the end of a student's time at the Gymnasium, they take the abitur, an exam for entrance into these institutions. ACT and SAT scores are usually part of an application to these institutions in the United States.

ANSWER: **colleges** [or **universities**; prompt on **schools**]

[10] A 2013 riot in Zhongxiang was caused by parents being angry about anti-cheating measures on this notoriously difficult college entrance exam. This Chinese exam usually takes place at the beginning of June.

ANSWER: **gaokao** ("gow-kow") [or **NCEE**] <DB, Other> {Other, Miscellaneous/Other Academic}

18. Osgood–Schlatter disease causes a bump below this structure. For 10 points each:

[10] Name this structure, a modified hinge joint, whose "cap" is called the patella.

ANSWER: **knee**

[10] The inflammation of Osgood–Schlatter disease can be treated with this class of drugs, which are non-selective or COX-2 selective. These drugs include ibuprofen and aspirin.

ANSWER: **NSAIDs** [or **nonsteroidal anti-inflammatory** drugs/agents, prompt on **anti-inflammatory** drugs/agents]

[10] The tubercle of this leg bone gets inflamed in OSD. This bone lies in front of the fibula and below the femur.

ANSWER: **tibia** [or **tibial** tubercle] <KL, Biology> {Science, Biology}

19. Watching *Ancient Aliens* may net you points on this next bonus. For 10 points each:

[10] Erich von Daniken is one of many who believe that the "helicopter" variety of these inscriptions indicate that aliens probably helped the Egyptians build the Great Pyramids, since it was practically impossible without them.

ANSWER: **hieroglyphs**

[10] Von Daniken also believed that *vimanas*, or flying chariots that appear in this book, are actually UFOs powered by nuclear energy. In this epic, the vulture Jatayu is killed as the antagonist flees in a chariot.

ANSWER: **Ramayana**

[10] Another "alienologist," Zechariah Sitchin, believes that the Annunaki were not actually gods in this people's myth system, but aliens from Nibiru. These people's sea god, Enki, created humans out of Kingu's blood.

ANSWER: **Sumerians** [accept **Babylonians**; prompt on **Mesopotamians**] <HP, Mythology> {Beliefs, Mythology}

20. For 10 points each, answer some questions about the German colonial empire in the Pacific Ocean:

[10] This Pacific island country became a German protectorate after Albert Ellis discovered phosphate mines on it. Its status of abuse by the rest of the world continues, as Australia uses it to hoard unwanted refugees.

ANSWER: **Nauru**

[10] The Northeastern portion of New Guinea was claimed by the German Empire and named after a Kaiser with this name. The son of that Kaiser had the same name and led Germany into World War I.

ANSWER: **Wilhelm** [accept **William**, **Wilhelm I**, or **Wilhelm II**]

[10] Following the signing of the Treaty of Versailles, this empire acquired many of Germany's Pacific territories. Those territories would later be part of a "Greater East-Asia Co-prosperity Sphere" that this empire attempted to create.

ANSWER: **Japan** [accept **Nihon** or **Nippon**] <HP, World History> {History, World History}